

**REMARKS**

Support for the above amendments to Claim 15 can be found in original Claim 19, and support for the amendment to Claim 25 can be found in original Claim 26. Original Claims 19 and 26 have been canceled. Applicants respectfully submit that no new matter has been added by these amendments.

The present invention relates to process for producing a tufted good. The process comprises treating a flexible film with corona-discharge at the specified power density, and contacting the treated flexible film with an uncured/partially cured back surface of a precoated greige good, and curing the resultant article. The greige good comprises fibers tufted into a primary backing and has a face surface and a back surface. Typically, a precoat is adhered to the back surface of the greige good. In the present invention, a flexible film is laminated to the back surface of the precoated greige good after being treated via corona discharge at a power density of 0.2 to 20 Ws/cm<sup>2</sup>. The invention as presently claimed clearly requires that the precoat in Claim 15 and the foam layer in Claim 25 comprise a reactive polyurethane system. This present invention also relates to tufted goods (see withdrawn Claims 1-14). Advantages of the present invention include the fact that a secondary backing is no longer needed to provide dimensional stability to tufted goods (see page 2, line 25 through page 3, line 7).

Applicants respectfully submit that the finality of the present rejection is clearly improper as the Examiner has additionally cited four (4) references in the Office Action dated July 7, 2004 which were not previously of record and/or cited against the presently claimed invention. The addition of these four references to the present rejections, even as "optional" references, clearly makes the finality of the Office Action improper. The Examiner's reliance on these new references clearly forms new grounds of rejection from each of the original rejections. It is respectfully submitted that the addition of these references was not due to the amendments Applicants' presented in their Amendment dated June 8, 2004 as those amendments served to clarify issues related to the rejection under 35 U.S.C. 112, second paragraph. Thus, the amendments could not have necessitated the new grounds of rejections! The finality of this Office Action has resulted in Applicants' being unfairly and improperly denied an opportunity to fully prosecute the claims in view of these new grounds of rejection. Accordingly, it is respectfully requested that the finality of the Office Action

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dated July 7, 2004 be withdrawn.

Claims 15-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Irwin reference (U.S. Patent 5,612,113) in view of the Langsdorf et al reference (U.S. Patent 6,299,715) and the Nohr et al reference (U.S. Patent 5,578,369), optionally taken with the Takizawa et al reference (U.S. Patent 6,299,714), the Strobel et al reference (U.S. Patent 5,244,780), the Hinterwaldner et al reference (U.S. Patent 5,070,121) and the Gastiger et al reference (U.S. Patent 5,527,629).

The Irwin reference ('113) discloses a carpet having a fluid barrier. Applicants' discuss this reference in the present specification on page 2, lines 12-24. As set forth therein, the '113 reference describes applying a film of liquid impervious material to either the primary backing or to the secondary backing of a carpet to achieve a fluid barrier to prevent liquids which are spilled from penetrating through onto the sub-surface below the carpet. When a foam layer is used instead of the secondary backing, the film is applied to the inner surface of the primary backing and then the foam is applied (column 2, lines 38-46). The Irwin reference also broadly discloses that the fluid barrier is applied with adhesives other than hot melt adhesives, and that polyurethane adhesives are suitable. It is also disclosed that corona-treatment of the film on one side may be sufficient to make it bondable to the backing. (See column 4, lines 15-20 and lines 36-38.)

Urethane adhesive laminated carpeting is described by the Langsdorf et al reference ('715). These polyurethane carpet laminating systems use only one polyurethane adhesive puddle. The resultant carpet laminates exhibit acceptable tuft bind and initial secondary backing adhesion, while having lower weight and a lower cost due to the decrease in amount of polyurethane used.

A method for laminating products and the resultant laminates are described by the Nohr et al reference. These laminates are composed of at least two layers of sheet materials, and possibly three layers of sheet materials. The '369 reference is not specific to tufted goods. The method comprises (A) applying an adhesive composition to a surface of a first sheet material; (B) exposing the adhesive composition on the surface of the first sheet material to incoherent, pulsed ultraviolet radiation from a dielectric barrier discharge excimer lamp; (C) contacting the surface of the second sheet material with the adhesive composition-bearing surface of the

first sheet material; and (D) allowing the adhesive composition to cure. The incoherent, pulsed ultraviolet radiation has a wavelength of from about 260 to about 360 nanometers. Sheet materials primarily composed of a polyolefin are preferably oxidized on the surface of the sheet for better wetting by the adhesive composition. Typically, this is by subjecting the sheet to corona discharge at power densities of from about 2 to about 10 kW/m<sup>2</sup>. After this, the adhesive composition is applied to the surface of the sheet material, and it is exposed to incoherent, pulsed ultraviolet radiation as described above.

The Takizawa et al reference is directed to a sealant application method. This method achieves strong adhesion of the first sealant applied as a preliminary sealant and the second sealant to be applied to the first sealant with less time and labor. The second sealant is applied directly to a primer which was applied on the first sealant. The method requires that the surface of the first sealant be subjected to an electric discharge treatment such as corona treatment, plasma treatment, blow treatment by corona discharge or arc discharge in a gas flow, and plasma torch treatment, to improve the wettability and reactivity (adhesiveness) of the surface of the first sealant to the primer and the second sealant.

The background of the Strobel et al reference discloses that it is known to use corona discharges in air to modify the surface of various polymer articles to improve the wettability, adhesion properties, ink receptivity, etc. The invention of the '780 reference is directed to photographic films constructed of a polyalkyl acrylate or methacrylate/gelatin containing layer on a surface treated polyester substrate. Specifically, the substrate is a flame-treated, fluorine treated or a heated nitrogen corona treated PET substrate that does not have a priming or subbing layer. This reference explicitly states that the correct combination of polymer treatment and emulsion chemistry enables the elimination of the prime or subbing layers.

A solvent-free, low-monomer or monomer-free polymerizable hot melt composition is described by the Hinterwaldner et al reference ('121). These hot melt compositions consist of (a) at least one polymerizing polymer containing OH groups and having an MW<sub>w</sub> of 1,000 to 500,000 and having a T<sub>g</sub>  $\geq$  20°C, (b) at least one polymerizable, linear straight chain and/or branched polyester and/or copolymer thereof with an MW<sub>w</sub> of 800 to 50,000 and having a T<sub>g</sub>  $\geq$  -50°C, and/or (c) a polymerizable ethylenically unsaturated oligomer carrying group selected from the

group consisting of acrylic, methacrylic, ether, ester, urethane, amide, imide, epoxide, siloxane, phenol, novolak and/or mercapto compounds with an MW<sub>w</sub> of 400 to 10,000, and (d) optionally, known additives in which (a), (b) and (c) are functionalized with at least one dimeric and/or oligomeric acrylic acid of a specified formula. When coating non-polar substances, surface treatment by flame or corona discharge is said to improve wettability and adhesion.

A process for depositing a layer of silicon oxide bonded to a substrate of polymer material is described by the Gastiger et al ('629) reference. This process uses high pressure and electrical discharge to treat the surface of the substrate before exposing it to an atmosphere containing silane and oxygen at high pressure. This forms a deposit of silicone oxide on the surface of the substrate.

It is respectfully submitted that the presently claimed invention is not rendered obvious by this combination of references.

The presently claimed process for producing a tufted good comprises (A) treating a flexible film with corona-discharge at the specified power density, (B) contacting the film with the uncured or partially cured back surface of a precoated greige good, in which the precoat comprises a reactive polyurethane system and (C) curing the resultant article. The tufted goods which result from this process exhibit improved dimensional stability. In fact, this process now enables the production of tufted goods that are dimensionally stable, even when produced without a secondary backing (see page 8, lines 1-4). Cured articles of the present invention exhibit delamination strength which significantly exceed that of conventional tufted goods. (See page 2, line 25 through page 3, line 7).

The Irwin Sr., reference ('113) discloses adding a film as a barrier layer to carpet products. This barrier layer prevents liquids and moisture from penetrating the carpet and cushion, and soaking the floor or surface underneath. This assists in preventing odors, stains, etc.

The carpets of the Irwin Sr. reference may comprise (1) a primary backing with tufted yarn, a precoat, a conventional secondary backing and a film of an impervious material; or (2) a primary backing with tufted yarn, a precoat, a film of an impervious material and a secondary backing; or (3) a primary backing with tufted yarn, a precoat, a film of an impervious material, a foam layer and a secondary backing (column 3, lines 2-8). Suitable films include polyethylene, polypropylene,

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polyurethane, polyester, polyvinylchloride (PVC), etc. and combinations thereof, and the film thickness may vary from 1 to 5 mils (column 2, lines 46-56). Generally, the film is generally applied between the primary backing before the secondary backing, or to the back side of the secondary backing. A hot melt adhesive may be used to secure the film to the primary backing or to the secondary backing (column 3, lines 4-20).

If a foam cushion is applied to the carpet instead of a conventional secondary backing, the fluid barrier (i.e. film) is between the foam cushion and the primary backing, and the film preferably comprises a non-woven or woven fabric on both sides to give maximum bonding. The fluid barrier is typically applied with non-aqueous adhesives (column 4, lines 15-36). The Irwin, Sr. reference broadly discloses that corona-treatment of one side of the film may be sufficient to render it bondable to the backing (column 4, lines 35-38). Thus, the film forms a fluid barrier between the precoated carpet and the secondary backing, or as an outer layer on the secondary backing.

The skilled artisan knows and understands that latex, polyurethane and other types of precoats and foams must be cured after they are applied. Curing of the precoat and/or foam may vary depending on the construction of the carpet product and the specific layers involved. Some suitable curing methods include curing by heat including hot air (moist or dry), microwave energy, RF energy, electron beam, UV (ultra-violet) laser beam, infrared heat, etc. Various heat sources for curing are disclosed by the Langsdorf et al reference, including those mentioned above (column 4, lines 36-46). Corona discharge treatment of films in laminated carpets is not disclosed by this reference.

Applicants note that the Examiner appears to be of the opinion that the polypropylene or jute referred to at column 1, lines 11-14 and at column 4, lines 36-61 are flexible films. (See page 4 of the July 7, 2004 Office Action, lines 1-6.) It is respectfully submitted that one of ordinary skill in the art would clearly recognize and understand that the Langsdorf et al reference is not referring to flexible films, but rather, is describing secondary backings! Secondary backings and flexible films are not the same thing!

The present invention requires a flexible film, and due to the surprisingly increased delamination strength and dimensional stability of the resultant tufted goods, a secondary backing is no longer necessary! In conventional tufted goods, secondary backings are necessary for dimensional stability of the tufted good. The present invention provides dimensional stability without a secondary backing!

The Nohr et al reference broadly discloses that corona discharge treatment of a sheet material oxidizes the surfaces of the sheet material to ensure the wettability of the surfaces by the adhesive compositions. It specifically describes treating a polyolefin film with corona discharge with a power density between 2 and 10 kW/m<sup>2</sup>. See column 6, lines 33-45. The laminates of this reference comprise at least two layers of sheet materials with an adhesive composition on a surface of the first sheet. It is also essential that the adhesive composition be exposed to incoherent, pulsed ultraviolet radiation from a dielectric barrier discharge excimer lamp. Suitable adhesives are described at column 4, lines 35-40. These adhesives comprise 60 to 94% of a cycloaliphatic diepoxide, 1 to 10% of a cationic photoinitiator, and 5 to 30% of a vinyl chloride-vinyl-acetate-vinyl alcohol terpolymer.

It is respectfully submitted that this combination of references (Irwin Sr., Langsdorf et al and Nohr et al) do not fairly suggest the presently claimed invention to one of ordinary skill in the art. The Langsdorf et al reference adds nothing to the present rejection. It does not disclose flexible films and/or corona discharge treatment of films. It does, however, describe that an adhesive is used on the tufted fibers and the secondary backing to ensure good delamination strength upon curing (see column 1, lines 11-25). This reference further discloses that a second puddle of polyurethane (i.e. a skip coat) may be applied to the secondary backing to further increase the dimensional stability.

The Nohr et al reference requires an adhesive to be applied between the two layers of sheet materials and that the adhesive be exposed to incoherent, pulsed ultraviolet radiation from a dielectric barrier discharge excimer lamp. It also describes that the sheet materials may be treated by corona discharge at a power density of between 2 and 10 kW/m<sup>2</sup>.

Applicants respectfully submit that combining the Langsdorf et al and the Nohr et al reference with the Irwin, Sr. references does not result in the presently claimed invention. Rather, this combination of references would lead the skilled

artisan to expect that an increase the bond strength and/or dimensional stability of tufted goods is achievable by (1) applying a skip coat of a polyurethane adhesive to the secondary backing as described in the Langsdorf et al reference, (2) substituting the adhesive composition of the Nohr et al reference for the reactive polyurethane system used as the precoat on the greige good of the Irwin Sr. reference, (3) exposing this adhesive composition to incoherent UV radiation as in the Nohr et al reference and (4) treating the flexible film of the Irwin Sr. reference with corona discharge. It is readily apparent that this is not Applicants' invention. The presently claimed invention only requires treating the flexible film with corona discharge and contacting this treated film with an uncured/partially cured reactive polyurethane precoat applied to the back surface of a greige good.

Although the Nohr et al reference describes corona discharge treatment of sheet materials, it does not disclose or suggest that corona discharge treatment improve the dimensional stability such that a secondary backing is no longer necessary! In fact, the Nohr et al reference is not related to tufted goods but rather to two or more layers of sheet materials. Also, the excellent adhesion in the Nohr et al reference is attributed to the adhesive composition being exposed to ultraviolet radiation, not the corona discharge treatment of the sheet material (see column 6, line 60 through column 7, line 6). It is further stated in the Nohr et al reference that excellent adhesion between sheet materials was achieved by careful control of the line speed to increase the amount of incoherent, pulsed ultraviolet radiation received by the sheet material per unit area (column 7, lines 7-19) and the distance of the excimer lamp to the nip (column 7, lines 20-36). Therefore, one of ordinary skill in the art upon reading this combination of references would believe that the adhesive composition must be exposed to ultraviolet radiation under carefully controlled conditions to be able to omit the secondary backing from the tufted goods of the Irwin, Sr. reference.

It is respectfully submitted that the Examiner is selectively reading the references to "arrive at" the presently claimed invention. Any combination of references which includes the Nohr et al reference will always require that the specific adhesive composition described therein be present in the final combination and that this adhesive composition be exposed to incoherent, pulsed ultraviolet radiation!

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Applicants respectfully submit that it is evident from the express disclosure that the specific adhesive composition and the exposure of this adhesive to incoherent, pulsed ultraviolet radiation is necessary for the invention of the Nohr et al reference to be suitable for its intended purpose. Both the CCPA and the Federal Circuit have consistently held that when a rejection under 35 U.S.C. §103 is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference, such a proposed modification is not proper and a *prima facie* case of obviousness has not been established. (See *In re Gordon*, 733 F.2d 900,221 USPQ 1125 (Fed. Cir. 1984).)

It is respectfully submitted that this combination of references simply does not lead one of ordinary skill in the art to reasonably expect or conclude that dimensional stability of tufted goods can be increased by simply treating a flexible film with corona discharge. Furthermore, there is no information disclosed in any of the presently cited references which would lead the skilled artisan to conclude that the increase in dimensional stability is such that a conventional secondary backing is no longer needed!

With regard to the "optionally" cited references (i.e. the Takizawa et al reference, U.S. 6,299,714; the Strobel et al reference, U.S. 5,244,780; the Hinterwaldner et al reference, U.S. 5,070,121; or the Gastiger et al reference, U.S. 5,527,629) and any combination of these with the Irwin Sr. in view of the Langsdorf et al and the Nohr et al references, it is respectfully submitted each of these optional references do not provide any additional insight into the presently claimed invention.

The Takizawa et al reference is specific to improving adhesion between two sealants by treating the first sealant layer with corona discharge, applying a primer and then applying the second sealant layer. The present invention does not relate to two sealant layers and thus, any improvement due to corona discharge treatment between two sealant layers in the Takizawa et al reference is not particularly pertinent to whether corona discharge can improve the adhesion and dimensional stability of a tufted good by treating a flexible film with the corona discharge and contacting this treated flexible film with a uncured/partially cured polyurethane precoat on a greige good. The skilled artisan would readily recognize and understand the differences between bonding two sealants with a primer as in the

Takizawa et al reference and a precoated greige good and a flexible film as required by the present claim language. Due to differences in the nature of the materials to be bonded, one of ordinary skill in the art would **not** expect corona discharge treatment of a sealant to be indicative of the result of corona discharge treatment of a flexible film!

That is, however, what the Examiner is suggesting. Applicants respectfully submit that there is no support in the Takizawa et al reference for this conclusion! This reference does not disclose or suggest that the bond strength between a flexible film and a reactive polyurethane system can be improved by corona discharge treatment of either substance.

Furthermore, combining this with the Irwin Sr., the Langsdorf et al and the Nohr et al reference does not result in the presently claimed invention. As previously stated, one can not simply modify the invention of a reference in a manner that results in the invention no longer being suitable for its intended purpose or function. Such modifications are clearly improper to establish the *prima facie* obviousness of a claimed invention.

The photographic films of the Strobel et al reference comprise a polyalkyl acrylate or methacrylate/gelatin containing layer on a polyester substrate. In this reference, the polyester substrate is treated with a flame, fluorine or heated nitrogen corona discharge. Although the Strobel et al reference discloses that prime or subbing layers can be eliminated, it is evident that the "invention" therein requires a specific combination of polymer treatment and emulsion chemistry. This reference is silent concerning treating flexible films with corona discharge and contacting these with precoat of a reactive polyurethane system adhered to a greige good. Polyurethane precoats are not discussed by this reference!

In fact, the Strobel et al reference does not disclose any information about improving bond strength and/or dimensional stability between flexible films, and reactive polyurethane precoats or reactive polyurethane foams. Accordingly, combining this reference with the Irwin, Sr. reference, the Langsdorf et al reference and the Nohr et al reference does not suggest the presently claimed invention to one of ordinary skill in the art.

The Hinterwaldner et al reference is specific to a solvent-free, low-monomer or monomer-free hot melt composition as described above. These hot melt compositions can form a corrosion-proof, abrasion proof or other protective film with barrier properties on substrates or molded bodies. Applicants' claimed invention does not, however, contain this specific hot melt composition. Even the broad statement by this reference that corona discharge of a plastic substrate improves wettability and thus adhesion, is limited to the specifically described hot melt compositions therein to achieve the characteristics and features as described (see column 24, lines 51-56). Accordingly, it is clearly improper for the Examiner to selectively read the statement concerning the improved wettability and adhesion due to treating the non-polar substrates by flame or corona discharge in the Hinterwaldner et al reference and conclude that corona discharge of any substrate will improve the adhesion to any composition! This conclusion is clearly not supported by the reference!.

Finally with respect to the Gastiger et al reference, this reference discloses that a combination of treating a substrate (e.g. sheet, film or shaped article) with corona discharge and depositing a layer of SiO<sub>2</sub> on the substrate (by a gaseous phase under plasma or cathodic pulverization) improves "wettability" of the surface (see column 5, lines 22-26). Thus, upon reading this reference, one of ordinary skill in the art would believe that the film must also have a layer of SiO<sub>2</sub> to improve wettability. The presently claimed invention does not require a layer of SiO<sub>2</sub> layer on the film surface! Therefore, combining the Gastiger et al reference with the other 3 references does not fairly suggest the presently claimed invention to one of ordinary skill in the art.

It is respectfully submitted by Applicants that each of the optional references presently cited by the Examiner are either specific to different "adhesive compositions" rather than reactive polyurethane systems and/or additionally require one or more other "treatments" to improve wettability and/or adhesiveness. Thus, the skilled artisan would expect that the adhesive composition of the Irwin Sr. reference must be changed to that of one of these optional references and/or that the other treatments must be used. Therefore, it is clear that any combination of one or more of these optional references with the Irwin Sr. reference, the Langsdorf et al

reference and the Nohr et al reference does not result in the presently claimed invention. Accordingly, the presently claimed invention is not rendered obvious by these various combinations of references.

Claims 25-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over the Langsdorf et al reference (U.S. Patent 6,299,715) in view of the Irwin Sr. reference (U.S. Patent 5,612,113) and the Nohr et al reference (U.S. Patent 5,578,369) optionally taken with the Takizawa et al reference (U.S. Patent 6,299,714), the Strobel et al reference (U.S. Patent 5,244,780), the Hinterwaldner et al reference (U.S. Patent 5,070,121) and the Gastiger et al reference (U.S. Patent 5,527,629).

Claims 25 and 27-30 of the present invention relate to a process for producing tufted goods comprising (A) treating a flexible film with corona-discharge at the specified power density, (B) contacting the treated flexible film with the uncured or partially cured back surface of a foam layer which comprises a reactive polyurethane system adhered to a greige good, and (C) curing the article formed in (B). In this embodiment, a foam cushion layer is applied to the back side of the greige good, and the treated flexible film is contacted with this foam cushion layer either before it is cured or after it is partially cured. Then, the entire article is cured.

Applicants respectfully submit that the Langsdorf et al reference is not particularly pertinent to the patentability of the presently claimed invention. This reference, as previously discussed, applies a polyurethane adhesive (via a puddle) to the reverse side of the greige good, passes the coated greige good under a doctor blade, and then contacts the reverse side of the coated greige good with a skip-coated secondary backing, passes the carpeting through a pair of marriage rollers or similar devices and into an oven for curing (column 4, lines 9-29).

As previously discussed, the purpose of the flexible film in the Irwin Sr. reference is to serve as a barrier against fluids contacting either the foam cushion layer or the subsurface under the carpet (column 2, lines 38-42.) This reference does not suggest that the flexible film may add dimensional stability to the carpet product in the absence of a secondary backing. Also, combining the flexible film of the Irwin Sr. reference with the Langsdorf et al reference results in (1) a precoated greige good with a flexible film attached which is then contacted with a skip-coated secondary backing, or (2) a precoated greige good contacted with a skip-coated

secondary backing which has the flexible film attached to the secondary backing. The inclusion of the Nohr et al reference with the Langsdorf et al reference combined with the Irwin Sr. reference also does not lead the skilled artisan to the presently claimed invention. Although the Nohr et al reference suggests the corona discharge treatment of films, it is expressly stated therein that adhesion is improved by exposing the adhesive to ultra-violet radiation, and a specific adhesive is required! Even if one skilled in the art decided to treat the film of the Irwin Sr. reference with corona discharge, the skilled artisan would also substitute the adhesive of the Nohr et al reference for the polyurethane adhesives of the Langsdorf et al reference and expose this adhesive as described in the Nohr et al reference. As previously discussed, the adhesives of the Nohr et al reference comprise 60 to 94% of a cycloaliphatic diepoxide, 1 to 10% of a cationic photoinitiator, and 5 to 30% of a vinyl chloride-vinyl-acetate-vinyl alcohol terpolymer. It is respectfully submitted that this combination is clearly not the presently claimed invention. Nor does this combination of references fairly suggest the presently claimed invention to one of ordinary skill in the art.

Applicants respectfully submit that this combination of references simply does not suggest the claimed invention which clearly requires treating a flexible film with corona discharge, contacting this with an uncured/partially cured foam layer of a reactive polyurethane system which is adhered to a greige good, and curing of the article. Even if one assumes that the initial polyurethane adhesive puddle of the Langsdorf et al reference is a foam layer instead of a precoat, or one includes a foam layer from the Irwin Sr. reference in the carpet of Langsdorf et al reference, the Nohr et al reference would still lead the skilled artisan to conclude that the adhesive compositions therein must be substituted for the polyurethane compositions of the Langsdorf et al and/or Irwin Sr. references, and that these adhesive compositions must be exposed to incoherent, pulsed ultraviolet radiation as in the Nohr et al reference as well as the exposure of the film to corona discharge. Accordingly, upon reading this combination of references, the skilled artisan would expect that (1) corona discharge treatment of the film is preferred, (2) the adhesive compositions of the Nohr et al reference must be substituted for the polyurethane compositions of the Langsdorf et al and/or Irwin Sr. references and (3) these adhesive compositions must also be exposed to the ultraviolet radiation.

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Furthermore, these references do not provide any insight to one of ordinary skill in the art into the fact that the secondary backing with the skip coating of the Langsdorf et al reference can be omitted completely as in the presently claimed process. The Langsdorf et al reference clearly requires the primary backing which is part of the greige good and the secondary backing which is skip coated. The Nohr et al reference is directed to laminating two (or more) substrates together with the specific adhesive composition that is treated with the ultraviolet radiation. The skilled artisan would clearly recognize that the substrates of the Nohr et al reference are most clearly related to the primary backing of the greige good and the secondary backing of the Langsdorf et al reference, and thus, would not omit the secondary backing or substrate!

Applicants have found, however, that the secondary backing of the Langsdorf et al reference is no longer necessary in the present invention, even for dimensional stability of the tufted good. One of ordinary skill in the art has no insight into this from the present combination of references. Accordingly, it is respectfully submitted that the presently claimed invention is not rendered obvious by the Langsdorf et al reference in combination with the Irwin Sr. reference and the Nohr et al reference.

In addition, any or all the four (4) "optional" references now cited by the Examiner do not provide insight into the presently claimed invention. As discussed hereinabove with respect to the rejection of Claims 15-18 and 20-24, each of these optional references are either specific to different type of adhesive compositions other than the presently required reactive polyurethane systems and/or requires one or more other "treatments" to improve wettability and/or adhesiveness. Thus, combining any (or all) of these optional references with the above combination of Langsdorf et al, Irwin Sr. and Nohr et al does not fairly suggest the presently claimed invention to one of ordinary skill in the art.

Rather, each of the optional references would lead the skilled artisan to expect that the specific adhesive of the reference must be substituted for the reactive polyurethane systems of the primary reference and/or an additional treatment (e.g. depositing a layer of  $\text{SiO}_2$  on the substrate as in the Gastiger et al reference) of the substrate is necessary. It is therefore evident that the addition of one or more of the optional references does not result in the presently claimed invention. Nor does such a combination provide any basis for one of ordinary skill in the art to conclude that

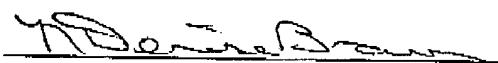
corona discharge treatment of a substrate will improve bond strength and dimensional stability of substrates with polyurethane adhesives such that a secondary backing is no longer needed. Accordingly, Applicants respectfully submit that the presently claimed invention is not rendered obvious by the present combination of references.

In view of the above, Applicants respectfully submit that only after reading Applicants' specification does it become "obvious" to proceed in the same manner as Applicants. Such a perspective does not, however, provide a proper basis for a rejection of the claimed invention under 35 U.S.C. §103(a).

It is respectfully submitted that this combination of references does not fairly suggest the invention to one of ordinary skill in the art. Accordingly, Applicants respectfully submit that these rejection are improper and request that it be withdrawn. The allowance of Claims 15-18, 20-25 and 27-30 is respectfully requested.

Respectfully submitted,

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